COPOLYMER FOR USE IN CHEMICAL AMPLIFICATION RESISTS

ABSTRACT OF THE DISCLOSURE

[0084] A copolymer is provided for use in a lithographic photoresist composition, particularly a chemical amplification photoresist. In a preferred embodiment, the copolymer is substantially transparent to deep ultraviolet radiation, i.e., radiation of a wavelength less than 250 nm, including 157 nm, 193 nm and 248 nm radiation, and has improved sensitivity and resolution. In one embodiment, the copolymer is comprised of an α-cyano- or an α-trifluoro-methacrylate monomer unit and a vinyl ether monomer unit. A lithographic photoresist composition containing the fluorinated copolymer is also provided, as is a process for using the composition to generate resist images on a substrate, i.e., in the manufacture of integrated circuits or the like.